

REMARKS

Applicant respectfully requests reconsideration and allowance of the subject application. Claims 1-15 and 22-36 are pending.

35 U.S.C. §103

Claims 1-15 and 22-32 are rejected under 35 U.S.C. §103(a) for obviousness over U.S. Patent No. 6,012,083 to Savitzky et al. (hereinafter, "Savitzky"), in view of a document entitled "Java Developer's Guide" (1996) to Jaworski (hereinafter, "Jaworski") (*Office Action* p.2).

Savitzky describes a third-party "agency" computing system that is interposed between one or more Web clients and one or more Web servers to interact with the clients and servers to transfer documents (col.3, lines 32-37). The Web clients and Web servers communicate documents via the agency with HTTP (hypertext transfer protocol) over a communication channel, such as the Internet (col.5, lines 6-12).

Savitzky refers to applets, stating that "client-side code execution is limited to documents in which a server has included applets and is limited to use with applet-aware browsers" (col.2, lines 41-43). This is essentially described in the "Background" section of Applicant's Specification and is an example of the very prior art that Applicant sought to overcome. Applets, by their very nature, raise security issues for local computer systems. In general, computer programs can be configured to cause harm to the local computer system (*Specification* p.2, lines 24-26). Applet viewers prevent harm from execution of an applet. For example, applets are prevented by an applet viewer from writing data to any persistent storage, thus protecting current contents of the persistent storage (*Specification*

1 p.3, lines 2-7). A disadvantage of the isolation of applets is that other computer
2 processes executing concurrently with and independently of the applet viewer
3 cannot communicate with the applets (*Specification* p.3, line 28 - p.4, line 1).

4 Jaworski describes a Web server program that receives a request from a
5 Web browser (i.e., a *GET* method), locates a specified resource, and returns the
6 requested resource data to the browser (*A Web Server*, p.521). Jaworski provides
7 an example of how to implement and test the simple Web server program
8 (*WebServerApp*) to receive a request and return a file or document (pp. 521-526).

9 Contrary to Savitzky and Jaworski, Applicant claims receiving a request for
10 a document from an applet, where the request specifies a function, the execution
11 of which performs a task that is unrelated to both generation and retrieval of any
12 document specified in the request (*see* claim 1, for example). Applicant describes
13 an interprocess communication mechanism in which applets can receive and
14 respond to processing requests of other computer processes, and which can send
15 processing requests to such other computer processes without requiring
16 modification of applet viewers. Additionally, computer system security is
17 preserved with interprocess communication because an applet is denied direct
18 access to computer system resources. (*Specification* p.5, lines 24-25).

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1 **Claim 1** recites a method for serving remote procedure calls from an
2 applet which executes within an applet viewer which in turn executes in a
3 computer system that is serving said remote procedure calls, the method
4 comprising:

5 receiving from the applet which executes in the same computer
6 system that serves said remote procedure calls, a request for a document
7 according to a document retrieval protocol implemented on a computer
8 network;

9 determining that the request specifies a function which is defined
10 within a computer process executing independently of the applet and applet
11 viewer and which includes one or more computer instructions, execution of
12 which performs a task which is unrelated to both generation and retrieval of
13 any document specified in the request; and

14 executing the function in the same computer system that is executing
15 said applet and applet viewer to thereby cause execution of the one or more
16 computer instructions in response to receipt of the request.

17 Savitzky and/or Jaworski do not teach or suggest the combination of
18 elements recited in claim 1. The Office recognizes that Savitzky describes a client
19 and server system that communicates information between the systems and does
20 not teach the combination of elements recited in claim 1 in a "same computer
21 system" environment (*Office Action* pp.2-3). Furthermore, Savitzky does not
22 teach or suggest both a request for a document *and* "determining that the request
23 specifies a function..., execution of which performs a task which is unrelated to
24 both generation and retrieval of any document specified in the request", as recited
25 in claim 1.

26 The Office contends that Savitzky at col. 1, line 63 through col. 2, line 43
27 teaches the elements of claim 1 (*Office Action* p.2). Applicant disagrees because
28 the cited section of Savitzky describes examples of server-client communications
29 that teach away from Applicant's claim 1. For example, the Office cites that

1 Savitzky describes a client sending a document request to a server for a document
2 in the form of a URL to execute a script that is defined in a program on the
3 server (*Savitzky* col. 2, lines 1-5). The Office disregards, however, that Savitzky
4 continues the description with "[t]he server generates a document in accordance
5 with the program and returns that document to the browser." (*Savitzky* col. 2, lines
6 5-7). This is expressly contrary to the execution of a function "which performs a
7 task which is *unrelated* to both generation and retrieval of any document specified
8 in the request", as recited in claim 1. To return a document to a client browser, the
9 document request of Savitzky would be related to the retrieval of the document.

10 With regards to "applets", Savitzky describes that "[w]ith client-side code
11 execution, the client requests a document and the returned document contains
12 program code embedded in the document ..." which can be used for such tasks as
13 animating graphic elements of a document (*Savitzky* col. 2, lines 25-31). This is
14 also expressly contrary to "a request for a document" and "determining that the
15 request specifies a function..., execution of which performs a task which is
16 *unrelated* to both generation and retrieval of any document specified in the
17 request", as positively recited in claim 1.

18 The Office recognizes that Savitzky is deficient when stating that "it is
19 inherent that the script has instructions that are thereby executed when invoked *in*
20 *order to generate the document*" (*Office Action* p.2). Accordingly, Savitzky does
21 not describe receiving "a request for a document" and "determining that the
22 request specifies a function..., execution of which performs a task which is
23 *unrelated* to both generation and retrieval of any document", as recited in claim 1.

24 Further, the Office recognizes that Savitzky does not request a document
25 according to a document retrieval protocol, as recited in claim 1. The Office states

1 that "it is also inherent that since the request [in Savitzky] is a request to execute a
2 script and *not a request for a document*, that the request is unrelated to any
3 generation or retrieval of a document" (*Office Action* p.2). Additionally,
4 Applicant disagrees that generating a document is unrelated to the retrieval of the
5 document, as the Office contends. Savitzky clearly describes that "the server
6 generates a document in accordance with the program and returns that document
7 to the browser" (*Savitzky* col. 2, lines 5-7), and that with applets, the client
8 requests a document and the returned document contains program code embedded
9 in the document" (*Savitzky* col. 2, lines 25-27). Further, "client-side code
10 execution is limited to documents in which a server has included applets"
11 (*Savitzky* col. 2, lines 25-27).

12 Accordingly, claim 1 is allowable over the Savitzky-Jaworski combination
13 for the many reasons that Savitzky does not teach or suggest the elements recited
14 in claim 1 as described above, and Applicant respectfully requests that the §103
15 rejection be withdrawn.

16 Jaworski also does not teach both a request for a document *and*
17 "determining that the request specifies a function..., execution of which performs
18 a task which is unrelated to both generation and retrieval of any document
19 specified in the request", as recited in claim 1. To the contrary, Jaworski describes
20 a Web server program that receives a request from a Web browser (i.e., a *GET*
21 method), locates a specified resource, and returns the requested resource data to
22 the browser (*A Web Server*, p.521). Jaworski further describes how to implement
23 and test the Web server program (*WebServerApp*) to receive a request and return a
24 file or document (pp. 521-526).
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1 Accordingly, claim 1 is allowable over the Savitzky-Jaworski combination
2 for the reasons that Jaworski also does not teach or suggest the elements recited in
3 claim 1, and Applicant respectfully requests that the §103 rejection be withdrawn.
4 Additionally, claims 2-5 and 22 are allowable by virtue of their dependency upon
5 claim 1.

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7 **Claim 6** recites "receiving from the applet ... a request for a document",
8 and "determining that the request specifies a function which is defined within a
9 computer process executing independently of the applet and applet viewer and
10 which includes one or more selected computer instructions, execution of which
11 performs a task which is unrelated to both generation and retrieval of any
12 document specified in the request."

13 As described above in the response to the rejection of claim 1, Savitzky
14 and/or Jaworski do not teach or suggest both a request for a document *and*
15 "determining that the request specifies a function which is defined within a
16 computer process executing independently of the applet and applet viewer...,
17 execution of which performs a task which is unrelated to both generation and
18 retrieval of any document specified in the request", as recited in claim 6.

19 Accordingly, claim 6, as well as dependent claims 7-10, are allowable over
20 the Savitzky-Jaworski combination and Applicant respectfully requests that the
21 §103 rejection be withdrawn.

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23 **Claim 11** recites "receiving from the applet ... a request for a document"
24 and "determining that the request specifies a function which is defined within the
25 computer process and which includes one or more computer instructions,

1 execution of which performs a task which is unrelated to both generation and
2 retrieval of any document specified in the request.”

3 As described above in the response to the rejection of claim 1, Savitzky
4 and/or Jaworski do not teach or suggest both a request for a document *and*
5 “determining that the request specifies a function which is defined within the
6 computer process and which includes one or more computer instructions,
7 execution of which performs a task which is unrelated to both generation and
8 retrieval of any document specified in the request”, as recited in claim 11.

9 Accordingly, claim 11, as well as dependent claims 12-15, are allowable
10 over the Savitzky-Jaworski combination and Applicant respectfully requests that
11 the §103 rejection be withdrawn.

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13 Claim 23 recites a method for serving remote procedure calls
14 received from an instruction set that executes within a first computer
15 process, the first computer process executing in a computing device that
16 serves the remote procedure calls, the method comprising:

17 receiving a request for a data file from the instruction set, the request
18 according to a data file retrieval protocol;

19 determining that the request for the data file specifies a function
20 which is defined within a second computer process executing in the
21 computing device independently of the instruction set and of the first
22 computer process, the function including one or more computer
23 instructions, execution of which performs a task which is unrelated to both
24 generation and retrieval of any data file specified in the request; and

25 executing the function in the computing device to execute the one or
more computer instructions in response to receipt of the request.

26 Savitzky and/or Jaworski do not teach or suggest the combination of
27 elements recited in claim 23 in a single computing device environment. Neither

1 Savitzky nor Jaworski teach both a request for a data file *and* "determining that the
2 request for the data file specifies a function..., execution of which performs a task
3 which is unrelated to both generation and retrieval of any data file specified in the
4 request", as recited in claim 23.

5 Similarly to the rejection of claim 1, the Office contends that Savitzky
6 teaches the elements of claim 23 (*Office Action* p.5). As described above in the
7 response to the rejection of claim 1, Savitzky describes examples of server-client
8 communications that teach away from Applicant's claim 23. For example,
9 Savitzky describes a client sending a document request to a server for a document
10 in the form of a URL that refers to a program on the server. The program
11 generates the document and the server returns the document to the browser
12 (*Savitzky* col.2, lines 1-7). This is expressly contrary to the execution of a function
13 "which performs a task which is *unrelated* to both generation and retrieval of any
14 data file specified in the request", as recited in claim 23.

15 The Office recognizes that Savitzky is deficient when stating that "it is
16 inherent that the script has instructions that are thereby executed when invoked *in*
17 *order to generate the document*" (*Office Action* p.5). Accordingly, Savitzky does
18 not describe receiving a request for a document and performing a task which is
19 unrelated to the retrieval of any document, as recited in claim 1.

20 Further, the Office recognizes that Savitzky does not request a document
21 according to a document retrieval protocol, as recited in claim 1. The Office states
22 that "it is also inherent that since the request [in Savitzky] is a request to execute a
23 script and *not a request for a document*, that the request is unrelated to any
24 generation or retrieval of a document" (*Office Action* p.5).
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1 Accordingly, claim 23, as well as dependent claims 24-27, are allowable
2 over the Savitzky-Jaworski combination and Applicant respectfully requests that
3 the §103 rejection be withdrawn.

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5 **Claim 28** recites "receiving a request for a data file" and "determining that
6 the request for the data file specifies a function..., execution of which performs a
7 task which is unrelated to both generation and retrieval of any data file specified in
8 the request".

9 As described above in the response to the rejection of claim 23, Savitzky
10 and/or Jaworski do not teach or suggest both a request for a data file *and*
11 "determining that the request for the data file specifies a function..., execution of
12 which performs a task which is unrelated to both generation and retrieval of any
13 data file specified in the request", as recited in claim 28.

14 Accordingly, claim 28, as well as dependent claims 29-32, are allowable
15 over the Savitzky-Jaworski combination and Applicant respectfully requests that
16 the §103 rejection be withdrawn.

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18 **New Claims**

19 New claims 33-36 are presented for examination. Based on the above
20 discussion regarding Savitzky and Jaworski, Applicant believes that claims 33-36
21 are also allowable.
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Conclusi n

Pending claims 1-15 and 22-36 are in condition for allowance. Applicant respectfully requests consideration and issuance of the subject application. If any issues remain that preclude issuance of this application, the Examiner is urged to contact the undersigned attorney before issuing a subsequent Action.

Respectfully Submitted,

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